



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Vtia

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,083	08/06/2001	Akira Shimazu	450100-03438	1494
20999	7590	11/16/2007	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			VAN HANDEL, MICHAEL P	
		ART UNIT	PAPER NUMBER	
		2623		
		MAIL DATE		DELIVERY MODE
		11/16/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/923,083	SHIMAZU ET AL.	
	Examiner	Art Unit	
	Michael Van Handel	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 August 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3,4 and 6-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,3,4 and 6-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/21/2007 has been entered.

Response to Amendment

1. This action is responsive to an Amendment filed 8/21/2007. Claims **1, 3, 4, 6-19** are pending. Claims **1, 3, 4, 6, 8-11** are amended. Claims **2, 5** are canceled. Claims **12-19** are new.

Response to Arguments

1. Applicant's arguments regarding claims **1, 4, 9, and 11-15**, filed 8/21/2007, have been fully considered, but they are not persuasive.

Regarding claims **1, 4, 9, and 11**, the applicant argues that Arsenault et al. does not disclose that the data following the forefront data end time is written to the memory means from only the selected channel simultaneously with reproduction of the forefront data. The examiner respectfully disagrees. The applicant specifically argues that Arsenault et al. receives and stores subsequent segments of the video program from each of the plurality of channels transmitting a portion of the video program in parallel, whereas, in an aspect of the invention, the subsequent

segments are all read from only a selected channel and the selected channel is chosen because that channel includes the end point of the forefront data.

The examiner first notes that the features upon which applicant relies (i.e., that all subsequent segments are read from only a selected channel) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As noted in the Office Action mailed 4/24/2007, Arsenault et al. discloses a method and apparatus for providing a virtual video on demand service. The method and apparatus discloses the storing of a segment of the video program in advance for video-on-demand (VOD) viewing at a later time. When the subscriber selects a VOD service, a pre-stored video segment is retrieved for presentation to the subscriber. Remaining video program segments simultaneously broadcast on a plurality of channels are recorded in parallel while the pre-stored video program segment is retrieved and presented to the user (see Abstract; col. 11, l. 45-56; & Fig. 7A). The examiner notes; however, that Arsenault et al. discloses selecting a channel from the seven illustrated channels that corresponds to the program data immediately following the pre-stored segment (Fig. 8A). In the illustration of Figure 8A, this would be the subsequent segment 806D of channel 6 (col. 11, l. 57-67 & col. 12, l. 1-7). The examiner interprets this as “a channel is selected from the plurality of channels, the selected channel distributing the program at the forefront data end time during the reproduction of the forefront data by the digital signal reproduction means,” as currently claimed. Since this data is written from only channel 6, the examiner interprets this as “the data following the forefront data end time is written to the

memory means from only the selected channel simultaneously with reproduction of the forefront data,” as currently claimed.

Regarding claims 12-15, the applicant argues that, in Arsenault et al., the segments received from the plurality of channels are properly spliced together according to a recirculating program time stamp (PTS), and that this is distinguished from the claims. The examiner respectfully disagrees. As noted in the Office Action mailed 4/24/2007, Arsenault et al. discloses that the video programs are encoded with program time stamps (PTS) and that a PTS time stamp is sent with each I-frame of the MPEG encoded data (col. 7, l. 50-60). Arsenault et al. further discloses assembling the program sub-segments at the receiver using the PTS time stamps. To splice segments together, the last I frame of a previous segment is spliced with the first I frame of a subsequent segment. Since the PTS provides an indication of the program time, it is used to match the I frames so that the segments may be properly spliced together (col. 15, l. 48-67 & col. 16, l. 1). This meets the limitation of “extracting time information in the program is provided,” as currently claimed. Arsenault et al. still further discloses that ambiguities caused by the wrap-around binary counter of the PTS are resolved by using a time-of-day clock in conjunction with the PTS (col. 16, l. 1-5). This meets the limitation of “so that time information of a clock function corresponds to the time information of the information extract means,” as currently claimed. Finally, Arsenault et al. still further discloses that the indicators that identify VOD services can be altered. If the VOD indicators are altered or removed, the pre-stored program segments with modified VOD indicators would no longer be relevant, and the irrelevant data would be recorded over (col. 16, l. 25-44). The examiner interprets the pre-stored program segments with modified VOD indicators to be altered programs. Thus, the altered pre-stored

program data is recorded over again with new program data. The new program data is once again received and recorded using the PTS time stamps in conjunction with the time-of-day clock. This meets the limitation of "and when the program is altered, the data recorded in the record means is recorded over again onto the forefront data of the altered program, employing the time information obtained in the time information extract means as a standard," as currently claimed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al.

Referring to claims 1, 4, 9, and 11, Inoue et al. discloses a video information reproducing apparatus/method in a Near Video On Demand system in which the same program is distributed in a plurality of channels for a predetermined time difference (col. 2, l. 33-38 & Figs. 1, 5) with forefront data being a portion of the program distributed during the predetermined time difference (col. 3, l. 57-63 & col. 8, l. 35-51), the video information reproducing apparatus comprising:

- a record means to record in advance forefront data from a forefront data start time to a forefront data end time (col. 8, l. 63-67 & Figs. 4A, 4B),

- a digital signal reproduction means to reproduce the forefront data of the predetermined time difference recorded in the record means (col. 9, l. 1-10),
- a memory means that can perform data writing and data reading in parallel (col. 4, l. 47-54), and
- a control means to execute control in which:
 - o the forefront data is reproduced by the digital signal reproduction means starting immediately at a time when the program is selected (col. 8, l. 63-67 & col. 9, l. 1-10);
 - o a channel is selected from the plurality of channels, the selected channel distributing the program at the forefront data end time during the reproduction of the forefront data by the digital signal reproduction means (col. 9, l. 11-22);
 - o the data following the forefront data end time is written to the memory means from only the selected channel simultaneously with reproduction of the forefront data (col. 9, l. 23-25); and
 - o after reproduction of the forefront data the following data is read from the memory means to be outputted continuously after the forefront data (col. 9, l. 26-30).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 4, 6, and 9-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Arsenault et al.

Referring to claims 1, 4, 9, and 11, Arsenault et al. discloses a video information reproducing apparatus/method (col. 1, l. 63-66 & Fig. 2) in a Near Video On Demand system in which the same program is distributed in a plurality of channels for a predetermined time difference with forefront data being a portion of the program distributed during the predetermined time difference (col. 11, l. 9-12 & Fig. 6), the video information reproducing apparatus comprising:

- a record means 232 (col. 6, l. 55-60) to record in advance forefront data from a forefront data start time to a forefront data end time (col. 11, l. 25-34 & Figs. 7A, 8A),
- a digital signal reproduction means 230 (col. 6, l. 66-67 & col. 7, l. 1) reproducing the forefront data of the predetermined time difference recorded in the record means (col. 11, l. 45-47),
- a memory means (buffer memory) that can perform data writing and data reading in parallel (col. 6, l. 60-66), and
- a control means 210 (col. 7, l. 6-9) to execute control in which:
 - o the forefront data is reproduced by the digital signal reproduction means starting immediately at a time when the program is selected;

- a channel is selected from the plurality of channels, the selected channel distributing the program at the forefront data end time during the reproduction of the forefront data by the digital signal reproduction means;
- the data following the forefront data end time is written to the memory means from only the selected channel simultaneously with reproduction of the forefront data; and
- after reproduction of the forefront data the following data is read from the memory means to be outputted continuously after the forefront data (col. 11, l. 45-55; col. 12, l. 8-20; col. 15, l. 12-40; & Figs. 7A, 7B).

Referring to claims **3, 6, and 10**, Arsenault et al. discloses the video information reproducing apparatus/method as set forth in claims 12, 13, and 14, respectively, wherein the control means detects that the program is altered through schedule information distributed by one channel among the plurality of channels and extracts time information by the time information extract means based upon the detection result to alter the program (the examiner notes that the programs are altered through the program guide, which is distributed in the data stream from the satellite. See claim 1 above).

Referring to claims **12-15**, Arsenault et al. discloses the video information reproducing apparatus/method of claims 1, 4, 9, and 11, respectively, wherein a time information extract means extracting time information in the program is provided so that time information of a clock function corresponds to the time information of the information extract means, and when the program is altered, the data recorded in the record means is recorded over again onto the forefront data of the altered program, employing the time information obtained in the time

information extract means as a standard (the examiner notes that the indicators that identify VOD services can be altered. If the VOD indicators were altered or removed, the pre-stored program segments with modified VOD indicators would no longer be relevant, and the irrelevant data would be recorded over. The examiner further notes that the video packets contain program time stamps (PTS) and SMPTE 312M time codes that are extracted and used in splicing video segments and sub-segments (col. 15, l. 40-67 & col. 16, l. 1-5, 25-44).

Referring to claims 16-19, Arsenault et al. discloses the video information reproducing apparatus/method of claims 1, 4, 9, and 11, respectively, wherein the video information reproducing apparatus detects whether a distributed schedule information announces that the distributed schedule information is altered to include a new program and, in response, records forefront data for the new program to the record means (the examiner notes that the control center 102 associates indicators with programs in the program guide, indicating which VOD services are desired. The receiver 200 then receives the program guide from the satellite and scans it to find the video programs that have the associated service indicators. These programs are identified as programs to be recorded for VOD service. When these indicators are modified within the program guide, the schedule information provided by the control center 102 is altered (col. 7, l. 30-40; col. 9, l. 61-63; & col. 16, l. 8-34).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arsenault et al. in view of Browne et al.

Referring to claims 7 and 8, Arsenault et al. discloses the video information reproducing apparatus as set forth in claims 4 and 13, respectively, wherein the recording medium is comprised of a hard disk and wherein the time information obtained in the time information extract means is employed as time information of the control means (this limitation is met in the claim 2 citations above). Arsenault et al. also suggests retrieving data from a pre-stored segment and storing subsequent data in parallel using a disk drive (col. 11, l. 45-55). Arsenault et al. further discloses methods for achieving clean splicing from one of video program segment to the next (col. 15, l. 33-67 & col. 16, l. 1-5). Arsenault et al. does not disclose that the forefront data is recorded on a predetermined area of the hard disk. Browne et al. discloses a video recorder and playback system, wherein a user allocates a fixed portion of storage 104 for continuous FIFO buffering, while the rest of storage stores programming that the user desires to save (p. 7, l. 19-32; p. 8, l. 1-5; & p. 20, l. 28-32). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the disk drive of Arsenault et al. to be partitioned into logical spaces designated for different purposes, such as that taught by Browne et al. in order to afford the user greater flexibility over the recording and replaying of programs (Browne p. 2, paragraph 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Van Handel whose telephone number is 571-272-5968. The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVH



CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600